

AMENDMENTS TO CLAIMS

What is claimed is:

CLAIMS

Claim 1 (currently amended): An anticipatory processing system comprising:

a controller generating a prediction of an event determining program material to be displayed; and

an audio/video (A/V) processor controlled by the controller for preparing a digital stream for use in response to the prediction of the event,

wherein the anticipatory processing system smoothes transition to the program material to be displayed from a presently viewed program.

Claim 2 (original): The system according to claim 1 and wherein the A/V processor is also controlled by the controller for preparing A/V information associated with said program material for display in association with said digital stream in response to the prediction of the event.

Claim 3 (currently amended): The system according to claim 1 ~~or claim 2~~ and wherein the A/V processor prepares the digital stream for use by performing at least one of the following: preparing the digital stream for rendering; preparing the digital stream for storage; and preparing the digital stream for distribution via a communication network.

Claim 4 (original): The system according to claim 2 and also comprising a display unit displaying the A/V information associated with said program material in association with said digital stream if the event occurs.

Claim 5 (original): The system according to claim 1 and wherein the A/V processor, operating under control of the controller, uses the digital stream at a time after termination of preparation of the digital stream for use if the event occurs.

Claim 6 (original): The system according to claim 5 and wherein the time after termination of preparation of the digital stream for use is immediately after termination of preparation of the digital stream for use.

Claim 7 (original): The system according to claim 1 and wherein said event comprises at least one of the following: user input; an indication of a commercial break; an instruction from a headend or a broadcast source; an instruction from a computer program predicting user behavior based on a user profile; an alert associated with a current display; and at least one message from a broadcaster or a service provider.

Claim 8 (original): The system according to claim 1 and wherein said program material comprises a commercial.

Claim 9 (original): The system according to claim 1 and wherein said program material comprises a segment of a television program.

Claim 10 (original): The system according to claim 1 and wherein the digital stream is associated with a channel.

Claim 11 (original): The system according to claim 10 and wherein the channel comprises one of the following: a regular channel; and a virtual channel.

Claim 12 (currently amended): The system according to claim 2 ~~or claim 4~~ and wherein the A/V processor prepares the A/V information for display in association with the digital stream by performing at least one of the following: preparing the A/V information for display over a channel associated with the digital stream; preparing the A/V information for display together with the digital stream in a picture-in-picture (PIP) mode; and preparing the A/V information for display together with the digital stream in a side-by-side mode.

Claim 13 (original): An anticipatory processing system comprising:

a controller generating a prediction of an event determining program material to be displayed; and

a tuner controlled by the controller for preparing an analog channel for use in response to the prediction of the event.

Claim 14 (original): The system according to claim 13 and wherein the analog channel comprises an analog television channel.

Claim 15 (currently amended): The system according to claim 13 ~~or claim 14~~ and wherein the tuner is also controlled by the controller for preparing A/V information associated with said program material for display over said analog channel in response to the prediction of the event.

Claim 16 (original): The system according to claim 13 and wherein the tuner uses the analog channel if the event occurs.

Claim 17 (original): An anticipatory processing system comprising:

a plurality of A/V processors comprising at least a first A/V processor and a second A/V processor; and

a controller controlling at least the first A/V processor and the second A/V processor and, upon the first A/V processor rendering or preparing for rendering a first digital stream, instructing the second A/V processor to prepare a second digital stream for rendering based, at least in part, on predicted input.

Claim 18 (original): The system according to claim 17 and wherein the controller generates the predicted input based upon at least one of the following: user input; an indication of rendering or preparation for rendering of the first digital stream; an indication of a commercial break; an instruction from a headend or a broadcast source; an instruction from a computer program predicting user behavior based on a user profile; an alert associated with a current display; and at least one message indicating current or scheduled occurrence of an event.

Claim 19 (currently amended): The system according to claim 17 ~~or claim 18~~ and wherein the controller comprises a stream selector for choosing any one of the first digital stream and the second digital stream from at least one of the following: a broadcast multiplex; and a plurality of digital content items stored in a memory.

Claim 20 (original): The system according to claim 17 and wherein the second A/V processor, operating under control of the controller, renders the second digital stream after termination of preparation of the second digital stream for rendering if the predicted input is actually inputted.

Claim 21 (original): The system according to claim 17 and wherein each of the plurality of A/V processors comprises a decoder for decoding an encoded data stream.

Claim 22 (original): The system according to claim 21 and wherein the encoded data stream comprises an encoded video stream.

Claim 23 (original): The system according to claim 22 and wherein the encoded video stream comprises an MPEG data stream and the decoder comprises an MPEG decoder.

Claim 24 (original): The system according to claim 23 and wherein the MPEG data stream comprises an MPEG-2 data stream and the MPEG decoder comprises an MPEG-2 decoder.

Claim 25 (original): The system according to claim 23 and wherein the MPEG data stream comprises an MPEG-4 data stream and the MPEG decoder comprises an MPEG-4 decoder.

Claim 26 (original): The system according to claim 17 and also comprising a display unit operative to display at least one of the following: audio content; and video content.

Claim 27 (original): The system according to claim 26 and wherein the audio content comprises audio content outputted by the first A/V processor and the video content comprises video content outputted by the first A/V processor.

Claim 28 (original): The system according to claim 27 and wherein the display unit also displays video content outputted by the second A/V processor as picture-in-picture (PIP) images.

Claim 29 (original): The system according to claim 17 and also comprising a content storage unit operative to store at least one of the following: audio content; and video content.

Claim 30 (original): The system according to claim 29 and wherein the audio content comprises audio content outputted by the second A/V processor and the video content comprises video content outputted by the second A/V processor.

Claim 31 (currently amended): The system according to claim 29 ~~or claim 30~~ wherein the controller retrieves from the content storage unit for display at least one of the following: audio content; and video content.

Claim 32 (original): The system according to claim 18 and wherein the user input comprises user channel changes.

Claim 33 (original): The system according to claim 32 and wherein the user channel changes comprise a channel change in a first direction, and the predicted input is one of the following: a channel change in the first direction; and a channel change in a direction opposite to the first direction.

Claim 34 (original): The system according to claim 33 and wherein the first direction comprises exactly one of the following: an upward direction; and a downward direction.

Claim 35 (original): The system according to claim 32 and wherein the user channel changes comprise changes between exactly one of the following: virtual channels; and regular channels.

Claim 36 (original): The system according to claim 17 and wherein the controller determines at least one favorite channel based, at least in part, on the predicted input.

Claim 37 (original): The system according to claim 17 and wherein the controller tracks a discrete object based, at least in part, on information concerning a path of the object.

Claim 38 (original): The system according to claim 37 and wherein the discrete object comprises a person.

Claim 39 (original): The system according to claim 38 and wherein the person comprises one of the following: an actor; a player; and an audience member.

Claim 40 (currently amended): The system according to claim 38 ~~or claim 39~~ and wherein the controller tracks the person only upon receipt of an indication of at least one of the following: knowledge of the person; and permission of the person.

Claim 41 (original): The system according to claim 40 and also comprising a processor receiving said indication from at least one of the following: the person directly; a broadcast source; and a headend.

Claim 42 (original): The system according to claim 41 and wherein said indication is generated from an authorization list of parties with permission to track the person that is provided by the person, wherein the indication is generated at one of the following: the broadcast source; and the headend.

Claim 43 (original): The system according to claim 37 and wherein the controller tracks the discrete object by processing images received from a plurality of cameras that together provide a panoramic view of the object, wherein each camera of the plurality of cameras provides a viewing range which is a subset of the panoramic view.

Claim 44 (original): The system according to claim 17 and wherein the controller comprises a special-effects generator for locally producing special effects.

Claim 45 (original): A cellular telephone comprising the system according to claim 1.

Claim 46 (original): A cellular telephone comprising the system according to claim 13.

Claim 47 (original): A cellular telephone comprising the system according to claim 17.

Claim 48 (original): Display apparatus for marking an object of interest on a display, the apparatus comprising:

- an object determiner determining the object of interest based, at least in part, on user input;

- a position information receiver receiving, from a source remote to the display apparatus, information defining a position of the object of interest within a displayed picture; and

- an on-screen display (OSD) unit displaying a visible indicator at a display position on the display, the display position being based, at least in part, on the position of the object of interest.

Claim 49 (original): Apparatus according to claim 48 and wherein the information is sent from a broadcast source or a headend.

Claim 50 (currently amended): Apparatus according to claim 48 ~~or claim 49~~ and wherein the information is addressed to at least one particular viewer.

Claim 51 (original): A set-top box (STB) comprising the apparatus of claim 48, the STB being associated with at least one particular viewer who is authorized to view the object of interest, and being operative to receive the information via a telephone message.

Claim 52 (original): Apparatus according to claim 48 and wherein the object of interest is operatively associated with identification (ID).

Claim 53 (original): Apparatus according to claim 48 and wherein the object of interest comprises a person.

Claim 54 (original): Apparatus according to claim 53 and wherein the person comprises one of the following: an actor; a player; and an audience member.

Claim 55 (currently amended): Apparatus according to claim 53 ~~or claim 54~~ and wherein said position information receiver receives said information from the source remote to the display apparatus only upon generation of an indication of at least one of the following: knowledge of the person; and permission of the person.

Claim 56 (original): Apparatus according to claim 55 and wherein said indication is generated at the source from an authorization list of parties with permission to track the person that is provided by the person.

Claim 57 (currently amended): Apparatus according to claim 53 ~~or claim 54~~ and wherein said position information receiver receives via said source a permission from the person to be tracked.

Claim 58 (currently amended): Apparatus according to claim 53 ~~or claim 54~~ and wherein the position information receiver receives an indication of a permission to be tracked directly from the person.

Claim 59 (currently amended): An anticipatory processing method comprising:
predicting an event determining program material to be displayed; and
preparing a digital stream for use in response to said predicting,
wherein the anticipatory processing method smoothes transition to the
program material to be displayed from a presently viewed program.

Claim 60 (original): The method according to claim 59 and also comprising:
preparing A/V information associated with said program material for
display in association with said digital stream in response to said predicting.

Claim 61 (currently amended): The method according to claim 59 ~~or claim 60~~
and wherein said step of preparing the digital stream for use comprises preparing
the digital stream for rendering.

Claim 62 (currently amended): The method according to claim 59 ~~or claim 60~~
and wherein said step of preparing the digital stream for use comprises preparing
the digital stream for storage.

Claim 63 (currently amended): The method according to claim 59 ~~or claim 60~~
and wherein said step of preparing the digital stream for use comprises preparing
the digital stream for distribution via a communication network.

Claim 64 (original): The method according to claim 59 and also comprising using
the digital stream if the event occurs.

Claim 65 (original): The method according to claim 64 and wherein said step of
using comprises at least one of the following: rendering the digital stream; storing
the digital stream; and distributing the digital stream.

Claim 66 (original): The method according to claim 65 and wherein said rendering comprises rendering the digital stream at a time after termination of preparation of the digital stream for use.

Claim 67 (original): The method according to claim 66 and wherein the time after termination of preparation of the digital stream for use is immediately after termination of preparation of the digital stream for use.

Claim 68 (original): The method according to claim 60 and wherein said preparing A/V information for display in association with said digital stream comprises at least one of the following: preparing the A/V information for display over a channel associated with the digital stream; preparing the A/V information for display together with the digital stream in a PIP mode; and preparing the A/V information for display together with the digital stream in a side-by-side mode.

Claim 69 (original): An anticipatory processing method comprising:
predicting an event determining program material to be displayed; and
preparing an analog channel for use in response to said predicting.

Claim 70 (original): The method according to claim 69 and also comprising preparing A/V information associated with said program material for display over said analog channel in response to said predicting.

Claim 71 (original): The method according to claim 69 or claim 70 and also comprising using the analog channel if the event occurs.

Claim 72 (original): The method according to claim 71 and wherein said step of using comprises at least one of the following: rendering the analog channel over a television display; and recording the program material in a VCR.

Claim 73 (original): An anticipatory processing method comprising:

providing a plurality of A/V processors comprising at least a first A/V processor and a second A/V processor; and

instructing the second A/V processor, upon the first A/V processor rendering or preparing for rendering a first digital stream, to prepare a second digital stream for rendering based, at least in part, on predicted input.

Claim 74 (original): The method according to claim 73 and also comprising rendering the second digital stream if the predicted input is actually inputted.

Claim 75 (original): A display method for marking an object of interest on a display, the method comprising:

determining the object of interest based, at least in part, on user input;

receiving information defining a position of the object of interest within a displayed picture; and

displaying a visible indicator at a display position on the display, the display position being based, at least in part, on the position of the object of interest.

Claim 76 (new): An anticipatory processing system comprising:

predicting means for predicting an event determining program material to be displayed; and

preparing means for preparing a digital stream for use in response to said predicting means,

wherein the anticipatory processing method means smoothes transition to the program material to be displayed into a presently viewed program.

Claim 77 (new): An anticipatory processing system comprising:

predicting means for predicting an event determining program material to be displayed; and

preparing means for preparing an analog channel for use in response to said predicting.

Claim 78 (new): An anticipatory processing system comprising:

providing means for providing a plurality of A/V processing means comprising at least a first A/V processing means and a second A/V processing means; and

instructing means for instructing the second A/V processing means, upon the first A/V processing means rendering or preparing for rendering a first digital stream, to prepare a second digital stream for rendering based, at least in part, on predicted input.

Claim 79 (new): Display apparatus for marking an object of interest on a display, the apparatus comprising:

determining means for determining the object of interest based, at least in part, on user input;

receiving means for receiving information defining a position of the object of interest within a displayed picture; and

displaying means for displaying a visible indicator at a display position on the display, the display position being based, at least in part, on the position of the object of interest.

Claim 80 (new): The system according to claim 4 and wherein the A/V processor prepares the A/V information for display in association with the digital stream by performing at least one of the following: preparing the A/V information for display over a channel associated with the digital stream; preparing the A/V information for display together with the digital stream in a picture-in-picture (PIP) mode; and preparing the A/V information for display together with the digital stream in a side-by-side mode.

Claim 81 (new): The system according to claim 18 and wherein the controller comprises a stream selector for choosing any one of the first digital stream and the second digital stream from at least one of the following: a broadcast multiplex; and a plurality of digital content items stored in a memory.

Claim 82 (new): The system according to claim 30 wherein the controller retrieves from the content storage unit for display at least one of the following: audio content; and video content.